



Get started on an  
in-demand career.

## BIOMEDICAL ELECTRONICS

### Associate of Applied Science

Biomedical technicians maintain and calibrate medical equipment used in hospitals and clinics to address diagnostic and life support needs.

#### JOB OPPORTUNITIES FOR GRADUATES

For those who have ever been in a hospital and have seen the equipment that patients are usually hooked up to beeping like they are supposed to, there is a biomedical technician to thank for that.

This meaningful career is one of the majors offered in the Electrical Engineering and Computer Technologies department within the School of Science, Technology, Engineering, and Mathematics at Owens. This major teaches students how to repair, calibrate, and evaluate the performance of electromechanical equipment used in the medical field and prepares students for a variety of exiting careers that are in high demand, both locally and globally. Students receive a strong background in electronics, life sciences and biomedical instrumentation.

"As the healthcare industry is challenged to improve cost efficiencies and better integrate digital medical technologies, the skills we impart at Owens will prove a foundation for continued progress in the field," said Diana Stachowiak, Ph.D., chair, Electrical and Electronics Engineering Technology. "For example, our intensive networking courses will act as a catalyst to further this transformation. We address additional key fields of expertise, such as remote management of networked equipment, diagnosing device issues, and recommending maintenance and repair solutions."

#### SALARY

The job market for the biomedical technicians is positive and steady and the long-term outlook is strong.

Employment of medical equipment repairers is projected to grow 30 percent from 2012 to 2022, much faster than the average for all occupations. The median annual wage for medical equipment repairers was \$44,570 in May 2012.

Those employed by an equipment manufacturer who have the appropriate specialty certification can expect a salary that exceeds \$90,000.

#### ACCREDITATION

Accredited by the Association of Technology, Management, and Applied Engineering (ATMAE).



#### LOCATION

Toledo-area Campus  
Toledo Hybrid

For more information, visit [www.owens.edu](http://www.owens.edu) or call:

#### Office of Admissions

Toledo-area Campus - (567) 661-7777  
Findlay-area Campus - (567) 429-3509

#### School of Science, Technology, Engineering and Mathematics

(567) 661-7457



OWENS  
COMMUNITY COLLEGE

# Program Curriculum

## BIOMEDICAL ELECTRONICS Associate of Applied Science

### REQUIRED COURSES

The Age of Coursework for EET 250 and EET 251 is 5 years - chair approval required for courses beyond that. Please refer to College Policy, Chapter 2 - Academic, 3358:11-2-22 Age of Coursework Policy.

High school and adult career-technical students who successfully complete specified technical programs are eligible to have technical credit transfer. For more information on career-technical course work that students can complete for transfer, visit The University System of Ohio Board of Regents, Career-Technical Credit Transfer (CT)2 website or contact your Advisor.

#### 1ST SEMESTER

EET 101	Circuit Analysis I	Credits: 4(Lec: 3 Lab: 3)
EET 118	C Programming	Credits: 3(Lec: 2 Lab: 3)
CHM 115	Inorganic & Organic Chemistry	Credits: 4(Lec: 3 Lab: 3)
ENG 111	Composition I*	Credits: 3(Lec: 3)
MTH 170	College Algebra*	Credits: 4(Lec: 4)
STM 105	Technology in Society	Credits: 2(Lec: 2)

#### 2ND SEMESTER

EET 102	Circuit Analysis II	Credits: 4(Lec: 3 Lab: 3)
EET 110	Electronics I	Credits: 4(Lec: 3 Lab: 3)
MTH 228	Mathematics for Technology	Credits: 3(Lec: 3)
BIO 121	Human Anatomy & Physiology	Credits: 4(Lec: 4)

#### 3RD SEMESTER

EET 130	Computer Diagnosis	Credits: 3(Lec: 2 Lab: 3)
EET 201	Digital Circuits	Credits: 4(Lec: 3 Lab: 3)
EET 211	Electronics II	Credits: 4(Lec: 3 Lab: 3)
PSY 111	Indust/Organization Psych	Credits: 3(Lec: 3)
EET 250	Biomedical Instrumentation I	Credits: 4(Lec: 3 Co-op: 10)

#### 4TH SEMESTER

EET 251	Biomedical Instrumentation II	Credits: 4(Lec: 3 Co-op: 10)
EET 281	Network Fundamentals	Credits: 2(Lec: .50 Lab: 4.50)
EET 282	Routing Protocols and Concepts	Credits: 2(Lec: .50 Lab: 4.50)
SPE 101	Public Speaking	Credits: 3(Lec: 3)

\*Ohio Transfer Module Course

More information about the Ohio Transfer Module Course can be found at [www.ohiohighered.org/transfer/transfermodule](http://www.ohiohighered.org/transfer/transfermodule)



### During the second year of the program, students take the following required courses:

EET 250 – Biomedical Instrumentation I and EET 251 – Biomedical Instrumentation II. Both are four credit courses and consist of three hours of lecture at the College and 10 hours minimum per week of internship/clinical experience at hospitals and other biomedical enterprises that work with Owens to provide hands-on training.

The internship program provides valuable learning and practical hands-on experience in the workplace. As students start their internship experience, they go through and prepare their resume and work through the interview process with prospective hospitals. This matching experience is like a real-life job hunt, so it prepares students with these skills as they graduate from the program.

### EMPLOYER TESTIMONIAL

Our experience with students from Owens has been great. They come prepared with the understanding and knowledge needed to succeed in the biomed field. Having a local program has been very advantageous to us. 90% of our biomed department are Owens alumni.

Steve Hanenkrath  
*Director, Biomedical Engineering,  
University of Toledo Medical Center*

For more information, visit [www.owens.edu](http://www.owens.edu) or call:

#### Office of Admissions

Toledo-area Campus - (567) 661-7777  
Findlay-area Campus - (567) 429-3509

School of Science, Technology, Engineering  
and Mathematics  
(567) 661-7457

Your *Success* Starts Here.



OWENS  
COMMUNITY COLLEGE